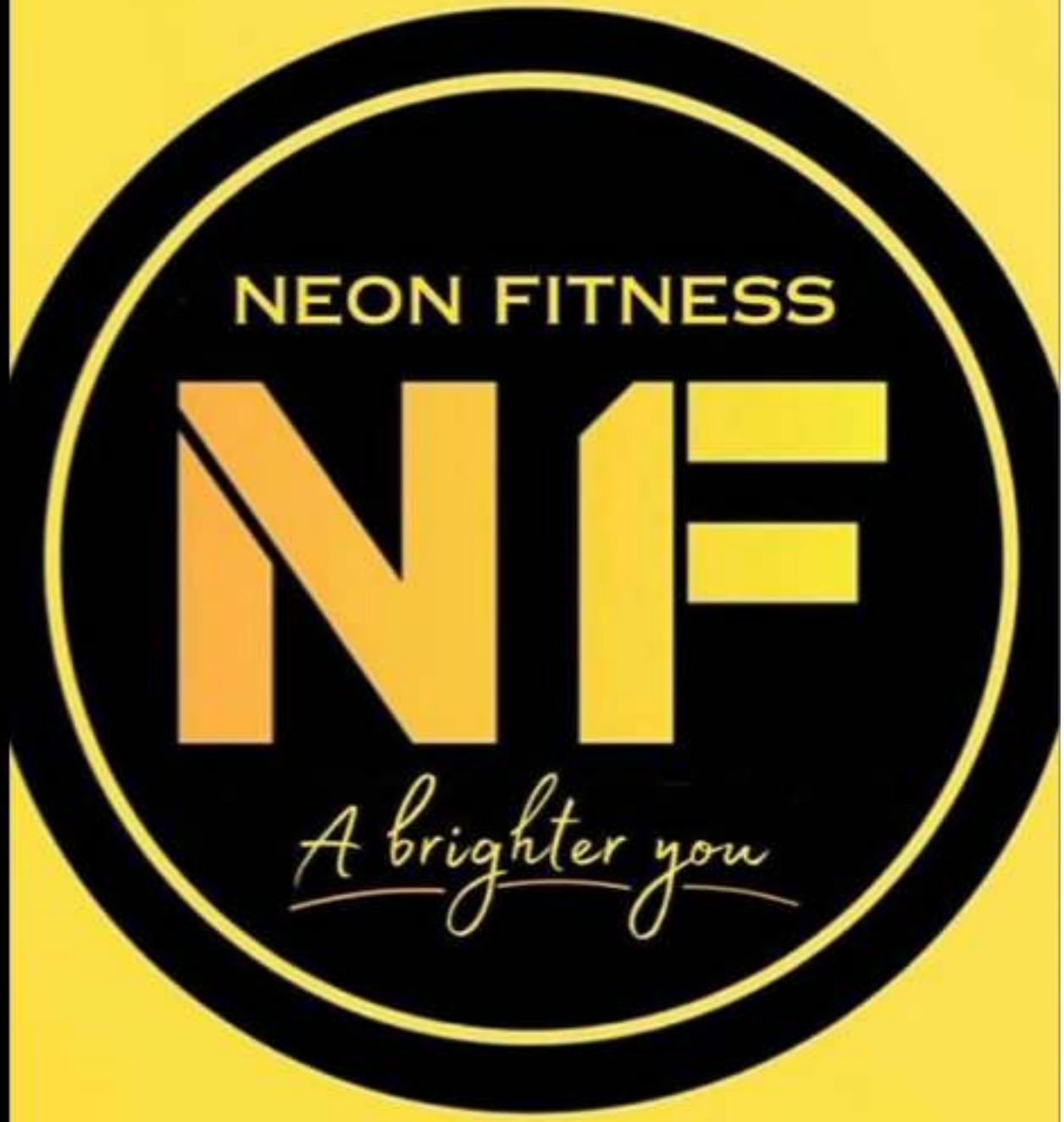
NEON MEMBER'S

BEGINNERS GUIDE TO NUTRITION

Introduction to the Breakdown of Food Groups.





"Healthy eating involves eating food that promotes the optimal health of all body systems and prevents the development of disease"

"A balanced diet involves regulating the quantities of the various food groups consumed, as over consumption of one food group at the expense of another has the potential to upset the body's delicate balance."

The nutrients that the body absorbs from food can be split into 2 main groups:

Macro-nutrients	Micro-nutrients
Carbohydrate	Vitamins
Protein	Minerals
Fat	

Macro-nutrient

CARBOHYDRATES

- Simple Carbohydrates (Sugars)
- Complex Carbohydrates (Starches)
- Non-Starch Polysaccharides (Fibre)

50% - 60% of the daily intake of calories we consume should be carbohydrates

Dietary carbohydrates are digested then utilised within the body for energy; to run essential body systems and carry out daily movements. Carbohydrates are broken-down into glucose then converted into glycogen to be stored in the muscles and liver.

Complex carbohydrates contain a high volume of other nutrients needed by the body to functions. Such as; Vitamins, Minerals, Protein and Dietary Fibre.

Whole-grain varieties of carbohydrates such as; bread, pasta & rice, have a far higher nutritional value than non-wholegrain products.

Examples Of Simple Carbohydrates










Examples Of Complex Carbohydrates








GLYCAEMIC INDEX - GI

- As there is many types of carbohydrates and they can all take varied amounts of time to be broken down by the body the GI scale was made to identify what foods create a faster / higher spike in blood glucose levels.

The GI Scale ranges from 0 - 100

- Food with a high GI (70 or more) has a rapid rise in blood sugar levels.
- Food with a moderate GI (between 50-70) produce a moderate rise.
- Food with a low GI (under 50) cause a slow gradual release into the blood stream.



FIBRE

- Insoluble-Fibre can be found in food such as; whole wheat, whole grain Products, wheat bran and vegetables.

- Soluble-Fibre can be found in foods such as; oats, barley, seeds, nuts, beans, lentils, fruits and many vegetables.

The Department of Health recommends an intake of 30g of Fibre per day.

Insoluble-Fibre is indigestible to the human body, however it is also essential for a healthy digestive system. As it helps other foods and waste products move their way through the gut easier.

Fibre sources present in fruit and vegetables are known as Soluble Fibre as it can be partly digested and is thought to help reduce the amount of cholesterol in the blood.

Macronutrient

PROTEIN

- Main purpose of Protein is to be broken down and used as building material within the body.
- Complete proteins have sufficient amounts of all essential amino acids.
- Incomplete proteins are lacking in more types of amino acids but can be combine to create complete proteins.

15% - 20% of the daily calories we consume should be made up from protein sources.

Protein is found in every single cell of the human body. Its job is to repair cells, damaged tissue and is essential for growth throughout life.

When digested they are broken down into amino acids, some of which are needed for the absorption of other macro/micro-nutrients. Other amino acids help make the body's hormones and enzymes with the endocrine system.

If your body doesn't have enough Glycogen (carbohydrates) stored within the body. It starts to break down proteins from the muscles and organs. Breaking down muscle mass and strength. ❌

Examples of Protein Rich Foods

















Macro-nutrient

FATS

- Stored as adipose fat around the organs and beneath the skin.
- Saturated Fats
- Monounsaturated Fats
- Polyunsaturated Fats which include; Omega-3 & Omega-6.

On average 20% 30% of the daily calories we consume should be made up of fats. This can also equate to 1/1.5g per kg of body weight.

Saturated fats are still important to be included as part of a balanced diet. Fats help aid in the; provision of energy, structural integrity of cells, promotion goods liver functions & enhancement of the immune system.

Evidence indicates heavily processed fats and spreadable fats such as margarine in high consumption, has risks to health through disease. Due to the process of hydrogenation where cheap vegetables oils are turns to solids. ✕

The by-product of this process creates what is known as Trans Fats, which essentially starts a build up of "bad cholesterol" in the body's blood vessels. ✕

Saturated	Monounsaturated	Polyunsaturated Omega-3	Polyunsaturated Omega-6
Meat Beef Pork Lamb Poultry **Dairy** Milk Cheese Yogurt Cream Butter Eggs **Oils** Coconut Palm Coco Butter	Lard & Beef Dripping Nuts Seeds Olives Avocado Olive Oil & Rapeseed Oil	Oily Fish Fatty Fish Cod Liver Oil Pasture Related Eggs Nuts Seeds Flax Seed Oil Hemp Oil Walnut Oil	Oils Soybeans Corn Sunflower seeds Primrose Oil Safflower Oil Grape-seed Oil Pumpkin Seeds Sesame Seeds

They do not provide any energy but are

Micro-nutrients

VITAMINS & MINERALS

Vitamins can be thought of in 2 groups:

- Fat - Soluble; Vitamins A, D, E & K. These vitamins need the presence of fat to be utilised.
- Water - Soluble; Vitamin B and Vitamin C. These vitamins need water to be absorbed and utilised.

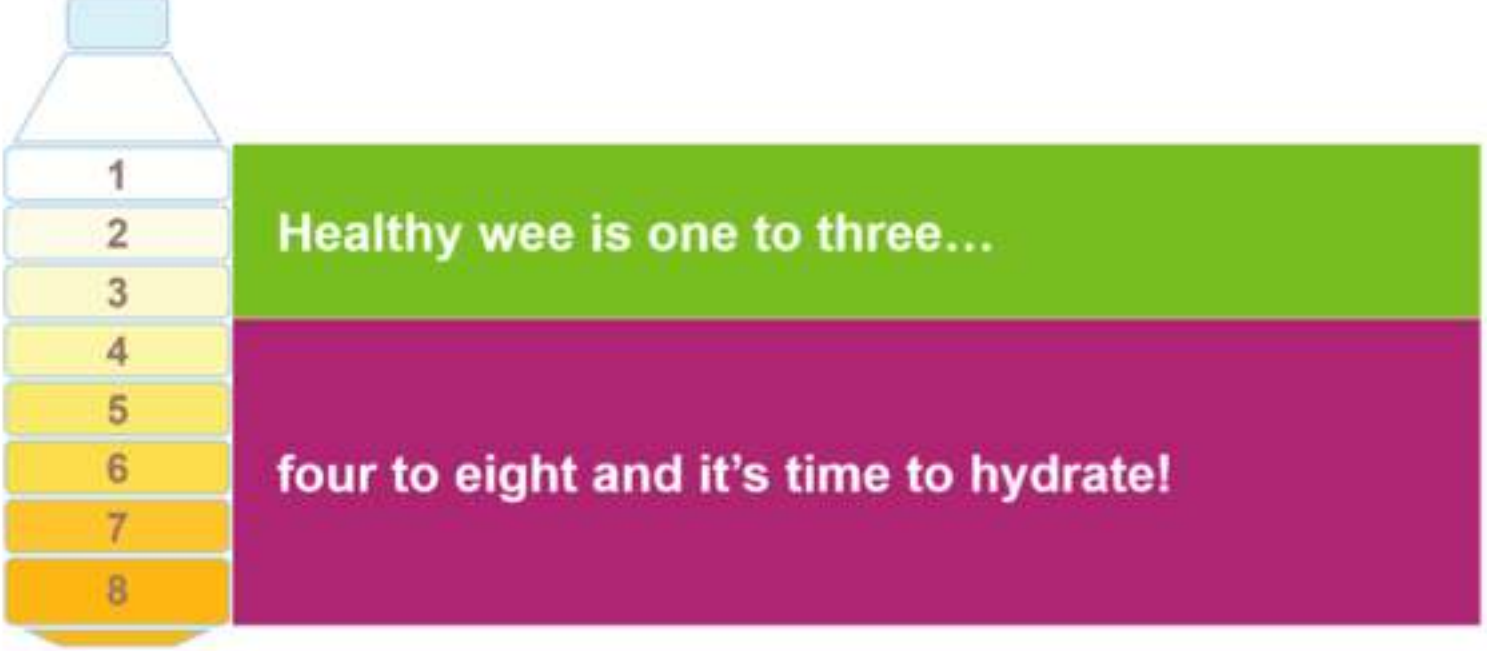
needed for optimal physical performance and good health. Also they provide an essential part to the enzyme systems involved in energy production, which aids physical performance.

Vitamins and minerals are also building components in cell structures. Some are also involved in the functioning of the hormonal, nervous and immune systems.

<u>Healthy bones need</u>; Vitamin D, Calcium, Phosphorus, Magnesium, Zinc, Copper & Sulphur.

<u>Immune system needs</u>; Vitamin C & E, Zinc, Selenium & Copper.

<u>Vitamin C</u>; helps with the absorption of iron into the blood, eat food rich in both together.



✅ Benefits of Staying Hydrated ✅

Aids optimal functioning of:

- Transporting nutrients in and waste products out of cells.
- Electrolytes, blood & body tissues.
- The bodies organs, nerves & muscles.
- Body temperature regulation.

❌ Signs of Dehydration ❌

- Early signs of dehydration; Headaches, Fatigue, Loss of Appetite, Flushed Skin, Light Headedness, Dry Mouth / Eyes, Dark Coloured & Strong Smelling Urine.
- Advanced signs of dehydration; Difficulty Swallowing, Clumsiness, Shrivelled Skin, Sunken Eyes, Dim Vision, Painful Urination, Numb Skin, Muscle Spasms & Delirium.